

Letters to the Editor

ACROMIAL DIMPLES: A BENIGN FAMILIAL TRAIT

To the Editor: Acromial dimples occurring bilaterally and in related members of a family have not, to our knowledge, been described previously [1].

A deep dimple over each acromion process was noted in the course of routine physical examination in a four-year-old girl (fig. 1), her 30-year-old mother, and her 65-year-old maternal grandmother. The carriers of this unusual trait are otherwise healthy and are free of dimples elsewhere in the body.

Because only three females in three successive generations exhibit bilateral acromial dimples, the exact pattern of inheritance of this trait in this family cannot be firmly established. Like cheek dimples, this trait is presumably the expression of an autosomal dominant gene. Other possible modes of inheritance which must be considered include an X-linked recessive pattern with female sex limitation or X-linked dominant inheritance.

One entity in which acromial dimples have been signaled as a constant feature is the long arm 18 deletion syndrome [2-6]. This syndrome, first described by de Grouchy and colleagues in 1964, shows a specific pattern of malformation recorded in over 30 cases to date. Although the majority of affected individuals share a characteristic midface hypoplasia, hypotonia, severe growth and mental deficiency, as well as visual and hearing problems, a few do not appear to be severely handicapped [7].

Acromion dimple has also been noted as an inconstant feature in a variety of malformation syndromes including the Russell-Silver syndrome (D. W. Smith, personal communication, 1973). In these conditions, the dimples are presumed to be secondary to a deficit of subcutaneous tissue in fetal development.

Deep dimples tend to occur at points of bony promontories where there has been close approximation of the bone and overlying skin prior to the development of subcutaneous adipose tissue [5]. They occur not infrequently at the elbow and knee, occasionally at the coccyx area, and less commonly at the acromion promontory as exemplified by the family described. Dimples may also occur secondary to aberrant bony prominences as in congenital bowing of the tibiae or in the camptomelic syndrome [8].

In the family described, none of the three individuals who exhibited bilateral acromion dimples showed an unusual configuration of the acromion process or a propensity to have dimples at other bony promontories.

Because of the rarity of bilateral acromion dimples in the general population



FIG. 1.—Bilateral acromial dimples in 4-year-old girl

and its occurrence in a well recognized chromosomal deletion syndrome, it was elected to place this observation on record.

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